

***What is claimed is:***

- 1     1.     A modular wall component, comprising:  
2                a main container having a first end, a second end, and a width; and  
3                a connector container being an elongated cylinder having a cross section that is  
4                generally circular in shape with a diameter and radius, said connector container being  
5                integrally connected to said second end of said main container, and said diameter of said  
6                connector container being greater than said width of said main container, such that said  
7                second end is a locking end.
- 1     2.     The modular wall component according to claim 1, wherein said first end of said main  
2                container is concave in shape with a diameter and a radius, and adapted to correspond to  
3                the generally circular shape of the cross section of said connector container, such that said  
4                radius of said connector container is about equal to said radius of said connector  
5                container, such that said first end of said main container is a receiving end for said  
6                connector container.
- 1     3.     The modular wall component according to claim 1, further comprising a second  
2                connector container being an elongated cylinder having a cross section that is generally  
3                circular in shape and being integrally connected to said first end of said main container,  
4                said diameter of said second connector container being greater than said width of said  
5                main container.
- 1     4.     The modular wall component according to claim 1, wherein said first end is a straight  
2                edge.
- 1     5.     The modular wall component according to claim 1, wherein said connector container is  
2                connected to said second end of said main container such that all of the width of said  
3                main container at said second end is in contact with said connector container.

- 1 6. The modular wall component according to claim 3, wherein said second connector  
2 container is connected to said first end of said main container such that all of the width  
3 of said main container at said first end is in contact with said second connector container.
- 1 7. The modular wall component according to claim 1, further comprising a means for lifting  
2 the modular wall component.
- 1 8. The modular wall component according to claim 1, further comprising a means for  
2 supporting the modular wall component on a base surface.
- 1 9. The modular wall component according to claim 1, further comprising a means for  
2 locking the modular wall component with a second modular wall component such that  
3 said connector container of said modular wall component is positioned within a receiving  
4 end of said second modular wall component.
- 1 10. The modular wall component according to claim 9, wherein said means for locking is a  
2 locking arm pivotally connected to a top surface of a main container of said second  
3 modular wall component in proximity to a first end of said second modular wall  
4 component and having a hole at a distal end, and said main container of the modular wall  
5 component having a locking pin located on a top surface of said connector container.
- 1 11. The modular wall component according to claim 10, wherein said locking arm has a  
2 length slightly larger than the radius of said connector container of said modular wall  
3 component.
- 1 12. The modular wall component according to claim 1, wherein said main container and said  
2 connector container are adapted to store a filler material.

- 1 13. The modular wall component according to claim 12, wherein said filler material is  
2 selected from the group consisting of water, sand, concrete, composite material, and a  
3 radiation attenuating liquid.
- 1 14. The modular wall component according to claim 12, further comprising a means for  
2 filling and draining the modular wall component.
- 1 15. The modular wall component according to claim 14, wherein said means for filling and  
2 draining the modular wall component is located on a front face of said main container.
- 1 16. The modular wall component according to claim 12, further comprising a means for  
2 visually indicating a level of said filler material contained within the modular wall  
3 component.
- 1 17. The modular wall component according to claim 1, wherein said main container and said  
2 connector container are each made of a solid material.
- 1 18. The modular wall component according to claim 17, wherein said solid material is  
2 selected from the group consisting of concrete, stone composition, and composite  
3 material.
- 1 19. The modular wall component according to claim 1, further comprising a means for  
2 stacking a second modular wall component on top of the modular wall component.
- 1 20. The modular wall component according to claim 19, wherein the modular wall  
2 component is adapted to store a filler material and further comprises a means for filling  
3 and draining located on a front face of said main container of the modular wall  
4 component, wherein said second modular wall component is adapted to store a filler  
5 material and further comprises a means for filling and draining located on a front face of  
6 a main container of said second modular wall component, and wherein said means for  
7 filling and draining the modular wall component is in communication with said means

8 for filling and draining said second modular wall component.

1 21. The modular wall component according to claim 1, wherein said main container is  
2 generally rectangular in shape.

1 22. A modular wall component, comprising:

2 a main container being generally rectangular in shape having a first end, a second  
3 end, and a width, wherein said first end is concave in shape with a diameter and a radius  
4 and is adapted to correspond to a generally circular shape of a cross section of a connector  
5 container of a second modular wall component, said connector container being an  
6 elongated cylinder integrally connected to a main container of said second modular wall  
7 component and having a cross section that is generally circular in shape with a diameter  
8 and radius, such that said radius of said connector container is about equal to said radius  
9 of said first end of said main container of the modular wall component and said diameter  
10 of said connector container being greater than said width of said main container of the  
11 modular wall component, thereby said first end of said main container being a receiving  
12 end for said connector container of said second modular wall component.

1 23. The modular wall component according to claim 22, wherein said second end of said  
2 main container is concave in shape with a diameter and a radius, and adapted to  
3 correspond to the generally circular shape of the cross section of said connector container  
4 of said second modular wall component, such that said radius of said connector container  
5 is about equal to said radius of said second end of the modular wall component, thereby  
6 said second end of said main container of the modular wall component being a receiving  
7 end for said connector container of said second modular wall component.

1 24. The modular wall component according to claim 22, further comprising a connector  
2 container being an elongated cylinder having a cross section that is generally circular in  
3 shape and being integrally connected to said second end of said main container, said  
4 diameter of said connector container being greater than said width of said main container.

- 1 25. The modular wall component according to claim 22, wherein said second end is a straight  
2 edge.
- 1 26. The modular wall component according to claim 24, wherein said connector container  
2 is connected to said second end of said main container such that all of the width of said  
3 main container at said second end is in contact with said connector container.
- 1 27. The modular wall component according to claim 22, further comprising a means for  
2 lifting the modular wall component.
- 1 28. The modular wall component according to claim 22, further comprising a means for  
2 supporting the modular wall component on a base surface.
- 1 29. The modular wall component according to claim 22, further comprising a means for  
2 locking the modular wall component with a second modular wall component such that  
3 a connector container of a main container of said second modular wall component is  
4 positioned within said receiving end of the modular wall component.
- 1 30. The modular wall component according to claim 29, wherein said means for locking is  
2 a locking arm pivotally connected to a top surface of said main container of the modular  
3 wall component in proximity to said first end of said main container and having a hole  
4 at a distal end, and said second modular wall container having a locking pin located on  
5 a top surface of said connector container of said second modular wall component.
- 1 31. The modular wall component according to claim 30, wherein said locking arm has a  
2 length slightly larger than the radius of said connector container of said second modular  
3 wall component.
- 1 32. The modular wall component according to claim 22, wherein said main container is  
2 adapted to store a filler material.

1 33. The modular wall component according to claim 32, wherein said filler material is  
2 selected from the group consisting of water, sand, concrete, composite material, and a  
3 radiation attenuating liquid.

1 34. The modular wall component according to claim 32, further comprising a means for  
2 filling and draining the modular wall component.

1 35. The modular wall component according to claim 34, wherein said means for filling and  
2 draining the modular wall component is located on a front face of said main container.

1 36. The modular wall component according to claim 32, further comprising a means for  
2 visually indicating a level of said filler material contained within the modular wall  
3 component.

1 37. The modular wall component according to claim 22, wherein said main container is made  
2 of a solid material.

1 38. The modular wall component according to claim 37, wherein said solid material is  
2 selected from the group consisting of concrete, stone composition, and composite  
3 material.

1 39. The modular wall component according to claim 22, further comprising a means for  
2 stacking a second modular wall component on top of the modular wall component.

1 40. The modular wall component according to claim 39, wherein the modular wall  
2 component is adapted to store a filler material and further comprises a means for filling  
3 and draining located on a front face of said main container of the modular wall  
4 component, wherein said second modular wall component is adapted to store a filler  
5 material and further comprises a means for filling and draining located on a front face of  
6 a main container of said second modular wall component, and wherein said means for  
7 filling and draining the modular wall component is in communication with said means

8 for filling and draining said second modular wall component.

1 41. A shielding wall, comprising:

2 a first modular wall component comprising:

3 a main container having a first end, a second end, and a width; and

4 a connector container being an elongated cylinder having a cross  
5 section that is generally circular in shape with a diameter and radius, said  
6 connector container being integrally connected to said second end of said  
7 main container, and said diameter of said connector container being  
8 greater than said width of said main container, such that said second end  
9 is a locking end;

10 a second modular wall component, comprising:

11 a main container being generally rectangular in shape having a  
12 first end, a second end, and a width, wherein said first end is concave in  
13 shape with a diameter and a radius and is adapted to correspond to the  
14 generally circular shape of the cross section of said connector container  
15 of said first modular wall component, thereby said first end of said main  
16 container of said second modular wall component being a receiving end  
17 for said connector container of said first modular wall component; and

18 a means for connecting said first modular wall component to said second modular  
19 wall component wherein said connector container of said first modular wall component  
20 is positioned within said receiving end of said second modular wall component.

1 42. The shielding wall according to claim 41, wherein said first modular wall component and  
2 said second modular wall component are adapted to store a filler material.

1 43. The shielding wall according to claim 42, wherein said filler material is selected from the  
2 group consisting of water, sand, concrete, composite material, and a radiation attenuating  
3 liquid.

1 44. The shielding wall according to claim 42, wherein said first modular wall component and

2           said second modular wall component further comprise a means for filling and draining.

1    45.    The shielding wall according to claim 42, wherein said first modular wall component and  
2           said second modular wall component further comprise a means for visually indicating a  
3           level of said filler material.

1    46.    The shielding wall according to claim 41, wherein said first modular wall component and  
2           said second modular wall are each made of a solid material.

1    47.    The shielding wall according to claim 46, wherein said solid material is selected from the  
2           group consisting of concrete, stone composition, and composite material.

1    48.    A shielding wall, comprising:

2           a first modular wall component comprising:

3                   a first main container having a first end, a second end, and a width;

4           and

5                   a first connector container being an elongated cylinder having a  
6                   cross section that is generally circular in shape with a diameter and radius,  
7                   said first connector container being integrally connected to said second  
8                   end of said first main container, and said diameter of said first connector  
9                   container being greater than said width of said first main container, such  
10                  that said second end is a locking end;

11          a second modular wall component, comprising:

12                  a second main container having a first end, a second end, and a  
13          width; and

14                  a second connector container being an elongated cylinder having  
15                  a cross section that is generally circular in shape with a diameter and  
16                  radius, said second connector container being integrally connected to said  
17                  second end of said second main container, and said diameter of said  
18                  second connector container being greater than said width of said second  
19                  main container, such that said second end is a locking end; and



20                   a means for stacking said first modular wall component on top of said second  
21 modular wall component.

1     49.     The shielding wall according to claim 48, wherein said first modular wall component and  
2             said second modular wall component are adapted to store a filler material.

1     50.     The shielding wall according to claim 49, wherein said filler material is selected from the  
2             group consisting of water, sand, concrete, composite material, and a radiation attenuating  
3             liquid.

1     51.     The shielding wall according to claim 49, wherein said first modular wall component and  
2             said second modular wall component further comprise a means for filling and draining.

1     52.     The shielding wall according to claim 51, wherein said means for filling and draining is  
2             a fill and drain valve, and said fill and drain valve of said first modular wall component  
3             is in communication with said fill and drain valve of said second modular wall  
4             component.

1     53.     The shielding wall according to claim 49, wherein said first modular wall component and  
2             said second modular wall component further comprise a means for visually indicating a  
3             level of said filler material.

1     54.     The shielding wall according to claim 48, wherein said first modular wall component and  
2             said second modular wall are each made of a solid material.

1     55.     The shielding wall according to claim 46, wherein said solid material is selected from the  
2             group consisting of concrete, stone composition, and composite material.